UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/073,570	02/11/2002	Akira Okawa	FUJI 19.420	5131

			EXAMINER
26304 7590 12/27/2005			KUO, ALEXANDER E

KATTEN MUCHIN ROSENMAN LLP
575 MADISON AVENUE
NEW YORK, NY 10022-2585

ART UNIT	PAPER NUMBER
2667	

DATE MAILED: 12/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/073,570	OKAWA ET AL.
	Examiner	Art Unit	
	Alexander Kuo	2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>2/11/04</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-8</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-8</u> is/are rejected.

7)☒ Claim(s) <u>3-4</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>11 February 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

        1.☒ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1.   Claims 3-4 are objected to because of the following informalities: unclear claim

language.

The examiner is uncertain of what applicant means in reciting "predetermined

data." Prosecution will be made on the assumption that "predetermined data" is any

type of notification or data from any signal. Furthermore, the examiner is unclear as to

how claims 3 and 4 differ. Applicant replaces "inserted" in claim 3 with "included" in

claim 4 and makes some punctuation changes. The examiner understands that the

applicant might be trying to disclose two different dependent claims, but as it currently

reads, claims 3 and 4 are the same.

In general, applicant's claim language should be revised so as to more clearly

spell out and define specific meaning and function. "Storage information," for example,

can mean a wide host of storage-indicating signals/data/information (and has been

interpreted as such).

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

3.   Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention.

In particular, the applicant is indefinite and vague in how the input signal is

"stored in an order of the first memory part, the second memory part, and the third

memory part." The examiner will prosecute this claim while interpreting the

aforementioned sentence as simply storing an input signal into memory.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5.   Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Kim.

-     Consider claim 1, Kim has a device for processing data signals comprising: a

storing part storing an input signal (column 2, lines 40-41), an extracting part extracting

said data signals included in said input signals from said storing part (column 2, lines

56-58) and outputting said data signals at a desired output speed (column 2, lines 29-

30, where providing high speed data transfer inherently means outputting at a desired

speed), and wherein said extracting part outputs said data signals based on storage

information (control characters) of said input signal (column 2, lines 63-66).

It should be noted that this device as taught by the applicant could be considered a common de-multiplexer. A de-multiplexer stores incoming data (storing part) and extracts specific parts of the data based on "storage information," just as applicant's device claims.

6.   Claim 8 is rejected under 35 U.S.C. 102(b) as being anticipated by Yamashita.

-       Consider claim 8, Yamashita discloses a method for processing data signals comprising the steps of: outputting said data signals in which an invalid data signal is inserted (column 3, lines 41-42), at said desired output speed when an input speed of said input data signal is slower than said desired output speed (plus pointer adjustment, column 3, line 43), and outputting said data signals in which said invalid data signal included in said data signals is deleted (column 3, lines 38-39), at said desired output speed when said input speed is faster than said desired output speed (minus pointer adjustment, column 3, lines 39-40).

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8.   Claims 3-5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim v. Matsunaga.

- Consider claims 3 and 4, Kim has a device for processing data signals as described in claim 1. As mentioned in the discussion of claim 1, applicant's language describes a de-multiplexer, a device Kim similarly teaches. Kim, however, does not teach the method of dealing with input and output signals of varying speeds. Matsunaga discloses a device where the extracting part (encoder) outputs data signals in which an invalid data signal is inserted/included to/in the input signal (column 2, lines 38-44 and column 6, lines 35-46). It would thus have been obvious to one skilled in the art at the time of the invention to use Kim's de-multiplexer in Matsunaga's device for extracting including data signals to be processed by the encoder and buffer.

- Regarding claim 5, as discussed above, Matsunaga's device is able to recognize valid vs. invalid data. Inherently, a monitoring part must exist in order to make this distinction. Furthermore, as taught by the applicant, a data determining part gives a determination notice to input invalid data. Therefore, as loosely recited by the applicant, the encoders of Matsunaga have a data determining part that serves the same function of deciding to input invalid data. It is thus obvious to one skilled in the art that Matsunaga's device also comprises a monitoring part monitoring said data signals (determination of validity of data bytes), a data determining part determining said data signals based on a notice of said storage validity of said data signals from said monitoring part, an invalid data generating part generating invalid data to insert into said data signal, whereas said invalid data generating part inserts said invalid data to said input signal in response to a determination notice from said data determining part (column 2, lines 38-44).

- Regarding claim 7, as explained in the discussion for claims 3 and 4, Kim v. Matsunaga together discloses a device with the processing device of Kim and the invalid data insertion of Matsunaga. Matsunaga further discloses as part of his device a multiplexing section 127 to multiplex the data (that possibly had invalid data inserted). Therefore, a device is disclosed for multiplexing data signals comprising both a multiplexing part and a plurality of signal processing parts, wherein each signal processing part is described by claim 1.

9.   Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim v. Knapp.

- Consider claim 6, Kim has the device of claim 1 with an extracting part but does not disclose what the extracting part comprises. Knapp teaches a method and device in a communication system for sending data that supports multiple forms of data (column 2, lines 34-35). Knapp further discloses a device and method in which a NO DATA command is used where the controller will ignore the data received (column 15, line 59-60). Inherently, by ignoring data so that it is not processed, the same function is achieved as applicant's deletion of no-data codes. Therefore, a device is disclosed which comprises a monitoring part monitoring data signals (controller), a no-data code determining part (controller) determining a no-data code and a deleting part (or ignoring part) deleting said no-data code included in said data signal. It would have been obvious to one skilled in the art at the of the invention to include in Kim's data processing device the device of Knapp so as to allow for a better and more flexible

communications system capable of supporting multiple forms of streaming and non-streaming data.

10.   Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim v. Brown.

- Consider claim 2, Kim has the device of claim 1 with a storing part but does not disclose what the storing part includes. Brown teaches a system for high data communication systems that uses three memory parts, or buffers (Figure 5) where data, and thus input, is stored (as is the purpose of a memory buffer). In Brown, the third memory buffer is used for signaling information (or storage information, as loosely recited by the applicant). In view of the broad limitations as set forth by the applicant, the third memory buffer can be the "second memory part" of applicant's claim (and thus Brown's first and second memory buffers are now applicant's first and third memory parts). It would have been obvious to one skilled in the art at the time of the invention to include in Kim's data processing device the storing part of Brown in order to minimize or even reduce computational complexity and hardware requirements (column 1, lines 36-39).

Conclusion

11.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Baba discloses a buffer to store data, a data selecting unit, a pattern generator (that also generates invalid data), the insertion of "stuff data" when data has to be delayed, as well as a multiplexer. Scheffel teaches a method of using

command codes within a data signal (eg invalid data). Sogo also has a method

involving insertion of invalid data. Blessin does not specify the use of invalid data, but

also teaches the use of "fill characters" in order to maintain character synchronization.

Herry discloses a method and device for correcting time modification problems due to

channel synchronization errors.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Alexander Kuo whose telephone number is (571) 272-

5246. The examiner can normally be reached on Monday through Friday, 8:30 a.m. -

5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Chi Pham can be reached on (571) 272-3179. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

CHI PHAM
SUPERVISORY PATENT EXAMINER

12/23/05